

CLAIMS

What is claimed is:

1. An aerosol solvent weld cement comprising:
about 14.5 to 20.0 wt % of at least one polymer resin;
about 30 to 75 wt % of at least one solvent in which the polymer resin can
be dissolved; and
about 10 to 50 wt % of at least one aerosol propellant.
2. The aerosol solvent weld cement of claim 1 wherein the polymer resin is selected from the group consisting of CPVC, PVC, ABS, acrylic resins and mixtures thereof.
3. The aerosol weld cement of claim 1 wherein the solvent is selected from the group consisting of tetrahydrofuran, cyclohexanone, butyrolactone, acetone and mixtures thereof.
4. The aerosol weld cement of claim 1 wherein the propellant is selected from the group consisting of dimethyl ether, propane, butane, isobutane and mixtures thereof.
5. The aerosol weld cement of claim 1 further including about 1.5 to 5.5 wt % of at least one viscosity modifier/flow control agent.
6. The aerosol weld cement of claim 5 wherein the viscosity modifier/flow control agent is selected from the group consisting of silica, clay and mixtures thereof.
7. The aerosol weld cement of claim 1 further including about 0.25 to 1.00 wt % of at least one organotin compound. *p.6 Spec.*
8. The aerosol weld cement of claim 7 wherein the organotin compound is selected from the group consisting of alkylated tin IV compounds, dibutyltin dilaurate, di-n-octyl tin dimercaptide, dibutyltin thioesters, di-n-octyltin maleate, dibutyltin carboxylates and dibutyltin dithioglycolates.
9. The aerosol weld cement of claim 1 further including a dye compound.
10. An aerosol solvent weld cement composition comprising:
about 14.5 to 16.0 wt % of at least one polymer resin;
about 30 to 75 wt % of at least one solvent in which the polymer resin can
be dissolved;
about 20 to 40 wt % of at least one aerosol propellant;
about 2.5 to 4.5 wt % of at least one viscosity modifier/flow control agent,
and
about 0.25 to 1.00 wt % of at least one organotin compound,
whereby the solvent weld cement is stored in and dispensed from an aerosol container.
11. The aerosol solvent weld cement of claim 10 wherein the polymer resin is selected from the group consisting of CPVC, PVC, ABS, acrylic resins and mixtures thereof.

12. The aerosol weld cement of claim 10 wherein the solvent is selected from the group consisting of tetrahydrofuran, cyclohexanone, butyrolactone, acetone and mixtures thereof.

13. The aerosol weld cement of claim 10 wherein the propellant is selected from the group consisting of dimethyl ether, propane, butane, isobutane and mixtures thereof.

14. The aerosol weld cement of claim 10 wherein the viscosity modifier/flow control agent is selected from the group consisting of silica, clay and mixtures thereof.

15. The aerosol weld cement of claim 10 wherein the organotin compound is selected from the group consisting of alkylated tin IV compounds, dibutyltin dilaurate, di-n-octyl tin dimercaptide, dibutyltin thioesters, di-n-octyltin maleate, dibutyltin carboxylates and dibutyltin dithioglycolates.

16. The aerosol weld cement of claim 10 further including a dye compound.

(17) An aerosol weld cement composition comprising about 14.5 to 16.0 wt % of at least one polymer resin; about 20 to 45 wt % of tetrahydrofuran; about 0 to 20 wt % of cyclohexanone; about 1 to 15 wt % of butyrolactone; about 10 to 40 wt % of acetone; about 20 to 40 wt % of at least one aerosol propellant; about 2.5 to 4.5 wt % of at least one viscosity modifier/flow control agent;

and

about 0.25 to 1.00 wt % of at least one organotin compound, whereby the solvent weld cement resists gelling when stored in and dispensed from an aerosol container.

18. The aerosol solvent weld cement of claim 17 wherein the polymer resin is selected from the group consisting of CPVC, PVC, ABS; acrylic resins and mixtures thereof.

19. The aerosol weld cement of claim 17 wherein the propellant is selected from the group consisting of dimethyl ether, propane, butane, isobutane and mixtures thereof.

20. The aerosol weld cement of claim 17 wherein the viscosity modifier/flow control agent is selected from the group consisting of silica, clay and mixtures thereof.

21. The aerosol weld cement of claim 17 wherein the organotin compound is selected from the group consisting of alkylated tin IV compounds, dibutyltin dilaurate, di-n-octyl tin dimercaptide, dibutyltin thioesters, di-n-octyltin maleate, dibutyltin carboxylates and dibutyltin dithioglycolates.

22. The aerosol weld cement of claim 17 further including a dye compound.

23. An aerosol weld cement composition comprising about 14.5 wt % of at least one polymer resin;

about 26 wt % of tetrahydrofuran;
about 7 wt % of cyclohexanone;
about 5 wt % of butyrolactone;
about 26 wt % of acetone;
about 30 wt % of at least one aerosol propellant;
about 3.5 wt % of at least one viscosity modifier/flow control agent; and
about 0.5 wt % of at least one organotin compound,

whereby the solvent weld cement resists gelling when stored in and dispensed from an aerosol container.

24. The aerosol solvent weld cement of claim 17 wherein the polymer resin is selected from the group consisting of CPVC, PVC, ABS, acrylic resins and mixtures thereof.

25. The aerosol weld cement of claim 23 wherein the propellant is selected from the group consisting of dimethyl ether, propane, butane, isobutane and mixtures thereof.

26. The aerosol weld cement of claim 23 wherein the viscosity modifier/flow control agent is selected from the group consisting of silica, clay and mixtures thereof.

27. The aerosol weld cement of claim 23 wherein the organotin compound is selected from the group consisting of alkylated tin IV compounds, dibutyltin dilaurate, di-n-octyltin dimercaptide, dibutyltin thioesters, di-n-octyltin maleate, dibutyltin carboxylates and dibutyltin dithioglycolates.

28. The aerosol weld cement of claim 23 further including a dye compound.

(29) A method of making an aerosol solvent weld cement composition comprising combining:

about 14.5 to 20.0 wt % of at least one polymer resin; about 30 to 75 wt % of at least one solvent in which the polymer resin can be dissolved; and

about 10 to 50 wt % of at least one aerosol propellant; whereby a solvent weld cement that resists gelling when stored in and dispensed from an aerosol container is formed.

30. The method of claim 29 wherein the polymer resin is selected from the group consisting of CPVC, PVC, ABS, acrylic resins and mixtures thereof;

the solvent is selected from the group consisting of tetrahydrofuran, cyclohexanone, butyrolactone, acetone and mixtures thereof; and

the propellant is selected from the group consisting of dimethyl ether, propane, butane, isobutane and mixtures thereof.

31. The method of claim 29 further including combining about 1.5 to 5.5 wt % of at least one viscosity modifier/flow control agent.

32. The method of claim 31 wherein the viscosity modifier/flow control agent is selected from the group consisting of silica, clay and mixtures thereof.

33. The method of claim 29 further including combining about 0.25 to 1.00 wt % of at least one organotin compound.

34. The method of claim 33 wherein the organotin compound is selected from the group consisting of alkylated tin IV compounds, dibutyltin dilaurate, di-n-octyl tin dimercaptide, dibutyltin thioesters, di-n-octyltin maleate, dibutyltin carboxylates and dibutyltin dithioglycolates.

35. The method of claim 29 further including the addition of a dye compound.

36. A method of making an aerosol solvent weld cement composition comprising combining:

about 14.5 to 16.0 wt % of at least one polymer resin;
about 30 to 75 wt % of at least one solvent in which the polymer resin can be dissolved;

about 20 to 40 wt % of at least one aerosol propellant;
about 2.5 to 4.5 wt % of at least one viscosity modifier/flow control agent, and

about 0.25 to 1.00 wt % of at least one organotin compound,
whereby a solvent weld cement that resists gelling when stored in and dispensed from an aerosol container is formed.

37. The method of claim 36 wherein the polymer resin is selected from the group consisting of CPVC, PVC, ABS, acrylic resins and mixtures thereof;

the solvent is selected from the group consisting of tetrahydrofuran, cyclohexanone, butyrolactone, acetone and mixtures thereof;

the propellant is selected from the group consisting of dimethyl ether, propane, butane, isobutane and mixtures thereof;

the viscosity modifier/flow control agent is selected from the group consisting of silica, clay and mixtures thereof; and

the organotin compound is selected from the group consisting of alkylated tin IV compounds, dibutyltin dilaurate, di-n-octyl tin dimercaptide, dibutyltin thioesters, di-n-octyltin maleate, dibutyltin carboxylates and dibutyltin dithioglycolates.

38. The method of claim 36 further including the addition of a dye compound.

39. A method of making an aerosol weld cement composition comprising combining:

about 14.5 wt % of at least one polymer resin;

about 26 wt % of tetrahydrofuran;

about 7 wt % of cyclohexanone;

about 5 wt % of butyrolactone;

about 26 wt % of acetone;

about 30 wt % of at least one aerosol propellant;

about 3.5 wt % of at least one viscosity modifier/flow control agent; and

about 0.5 wt % of at least one organotin compound,

whereby a solvent weld cement that resists gelling when stored in and dispensed

from an aerosol container is formed.

40. The method of claim 39 wherein the polymer resin is selected from the group consisting of CPVC, PVC, ABS, acrylic resins and mixtures thereof;

the solvent is selected from the group consisting of tetrahydrofuran, cyclohexanone, butyrolactone, acetone and mixtures thereof;

the propellant is selected from the group consisting of dimethyl ether, propane, butane, isobutane and mixtures thereof;

the viscosity modifier/flow control agent is selected from the group consisting of silica, clay and mixtures thereof; and

the organotin compound is selected from the group consisting of alkylated tin IV compounds, dibutyltin dilaurate, di-n-octyl tin dimercaptide, dibutyltin thioesters, di-n-octyltin maleate, dibutyltin carboxylates and dibutyltin dithioglycolates.

41. The method of claim 39 further including the addition of a dye compound.

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